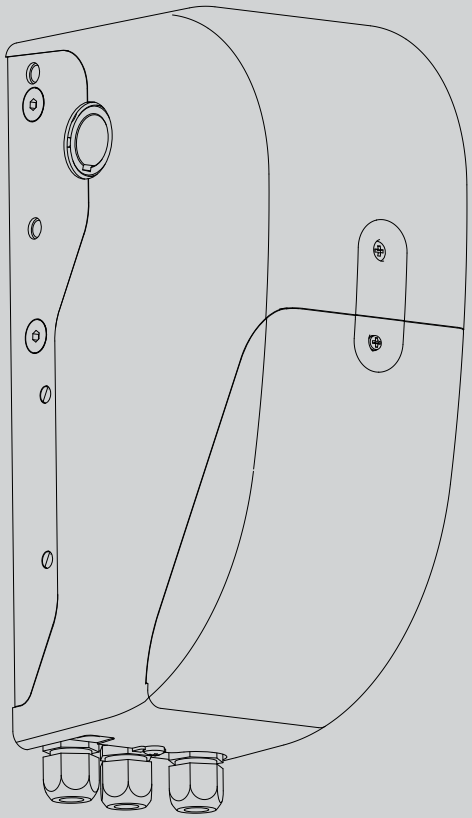
8 027908 347060

D811627 00100_02 18/02/09

OPERATORS FOR INDUSTRIAL SECTIONAL DOORS

ARGO

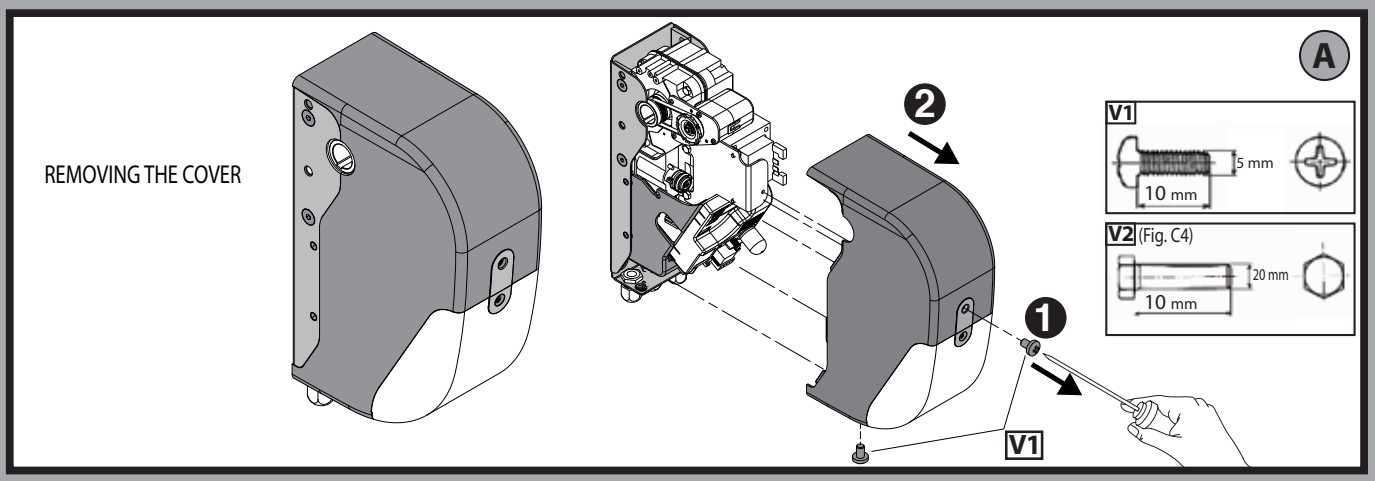


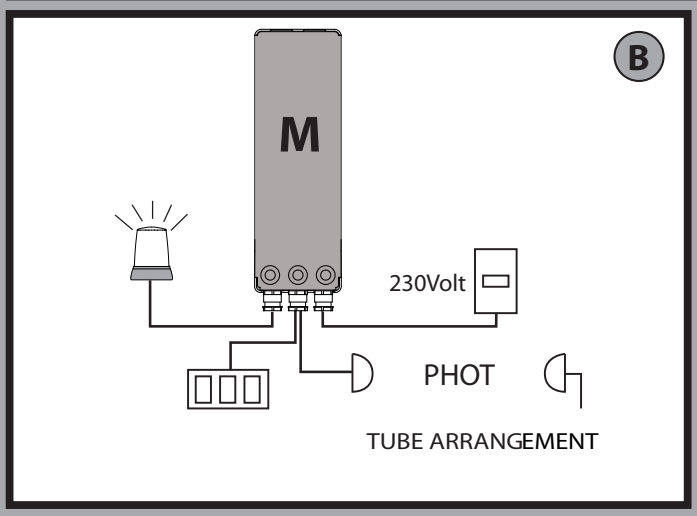
INSTALLATION MANUAL

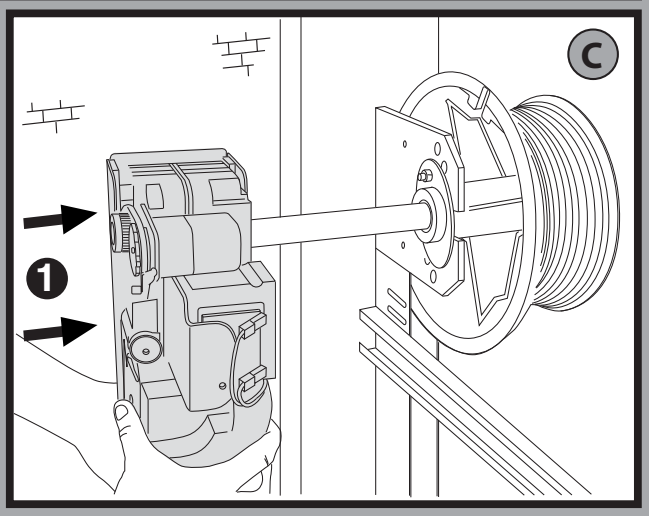
AZIENDA CON SISTEMA DI GESTIONE INTEGRATO CERTIFICATO DA DNV
= UNI EN ISO 9001:2000 =
UNI EN ISO 14001:2004

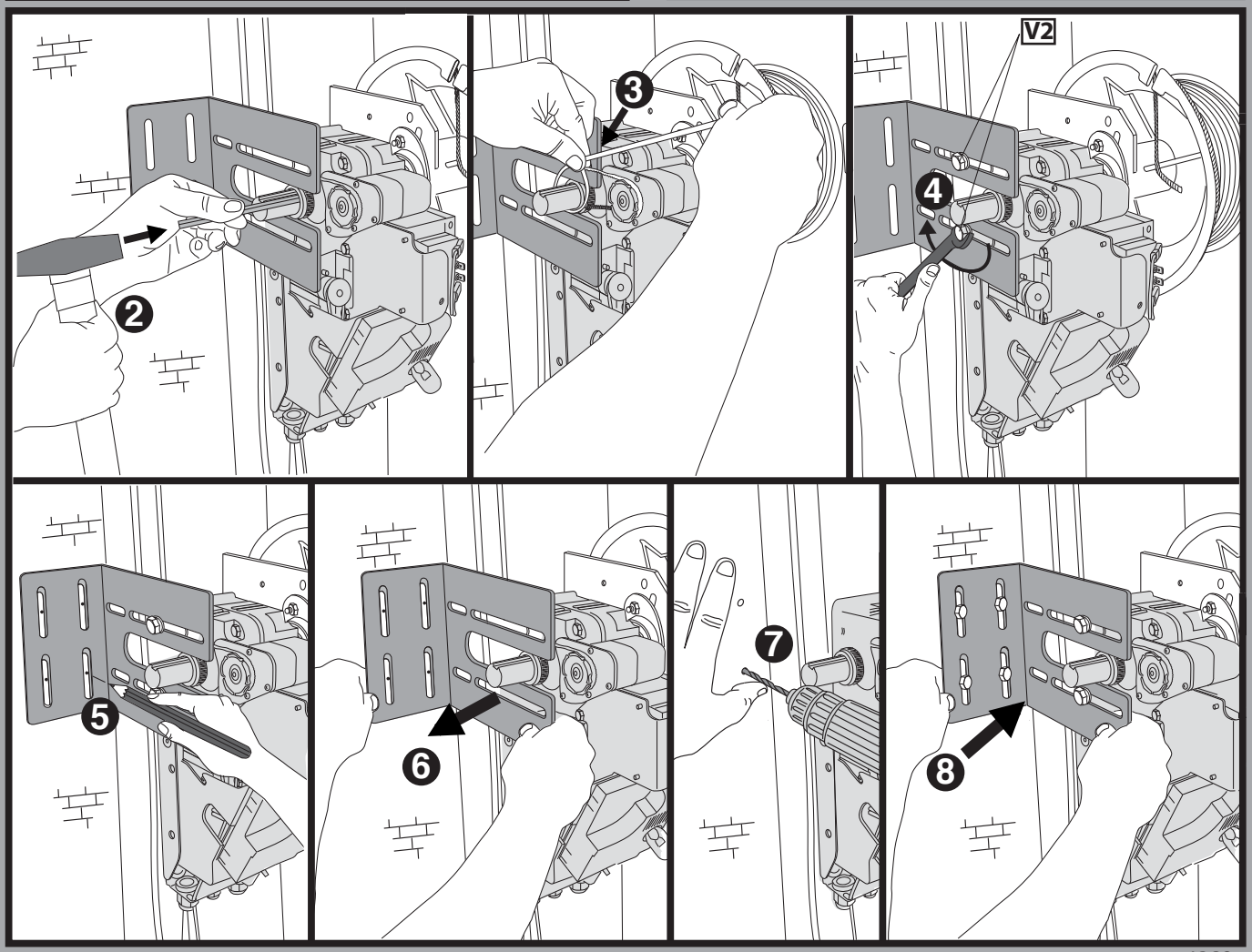
Attenzione! Leggere attentamente le "Avvertenze" all'interno! **Caution!** Read "Warnings" inside carefully! **Attention!** Veuillez lire attentivement les Avertissements qui se trouvent à l'intérieur! **Achtung!** Bitte lesen Sie aufmerksam die „Hinweise" im Inneren! **¡Atención¡** Leer atentamente las "Advertencias" en el interior! **Let op!** Lees de "Waarschuwingen" aan de binnenkant zorgvuldig!

QUICK INSTALLATION

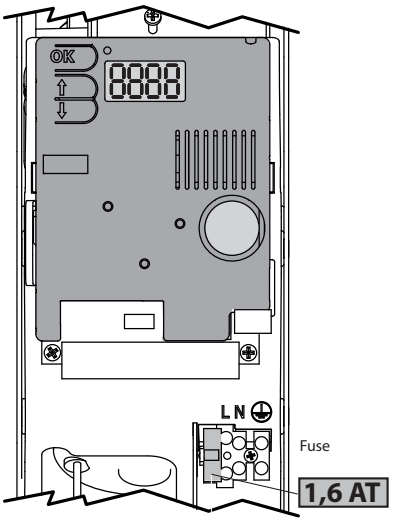


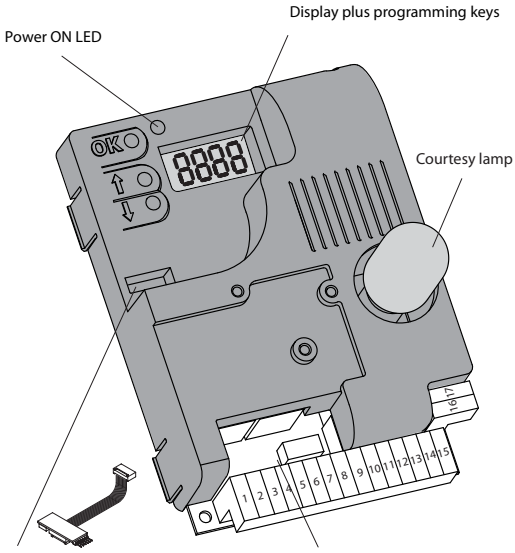


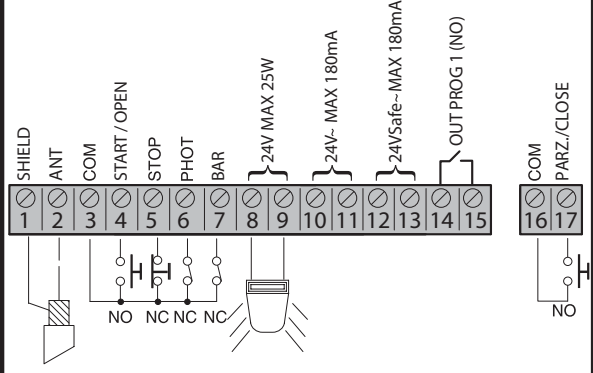




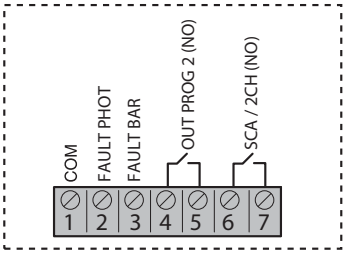
D





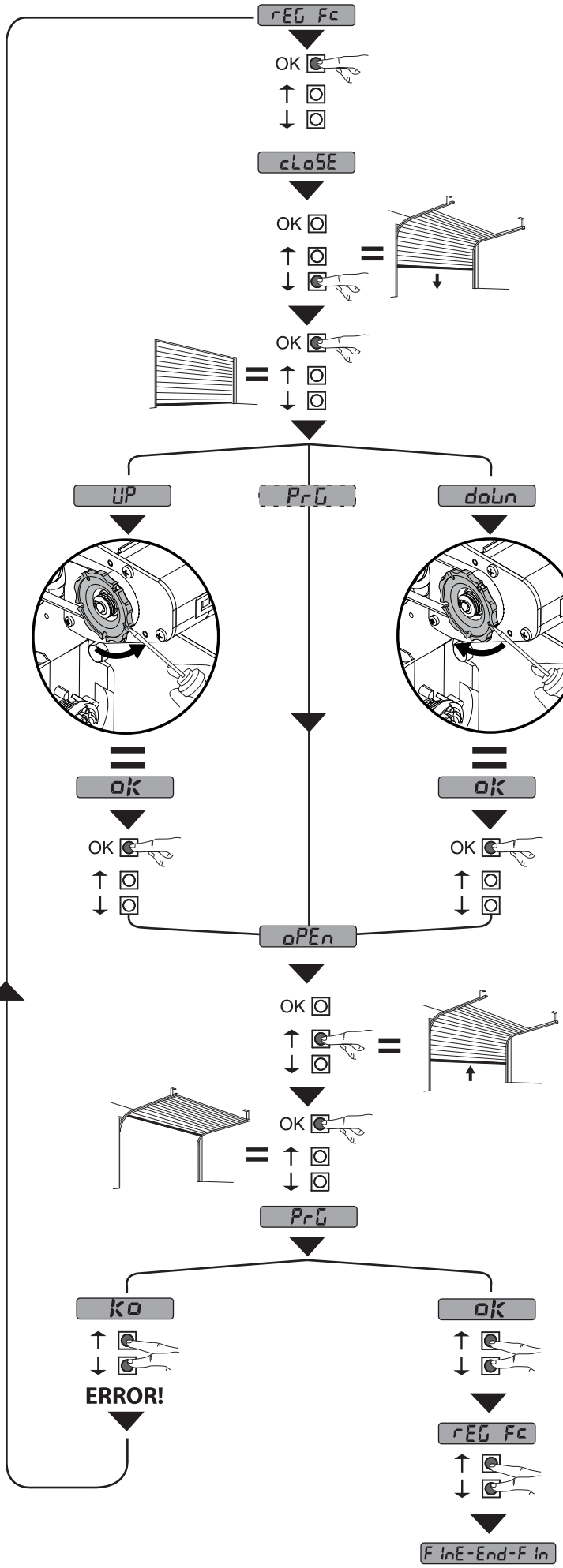


Optional SCS-IO module



ADJUSTING THE LIMIT SWITCHES

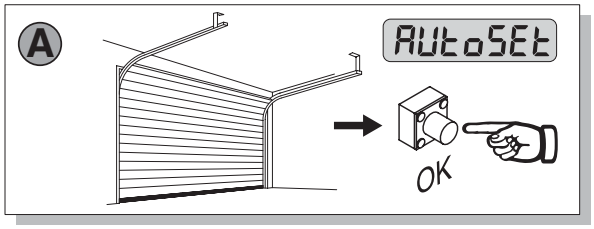
E

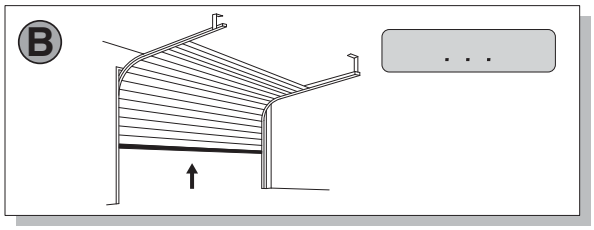


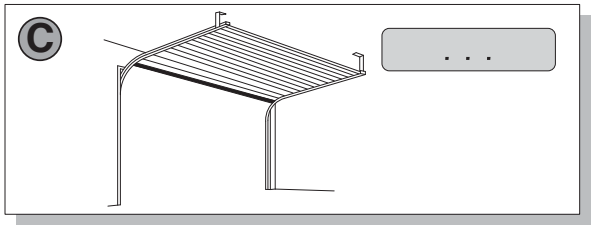
D811627 00100_02

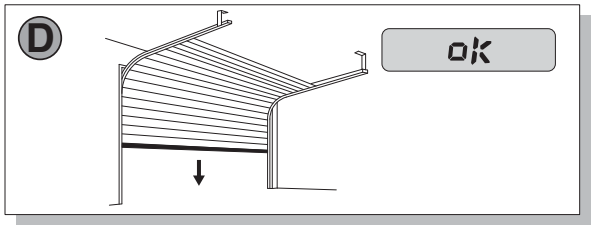
F

OPENING-CLOSING TORQUE AUTOSETTING



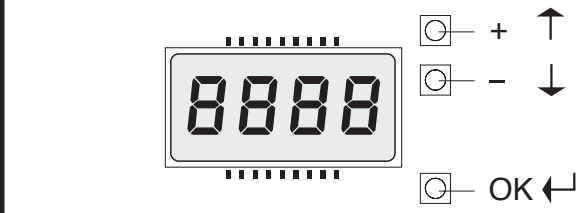


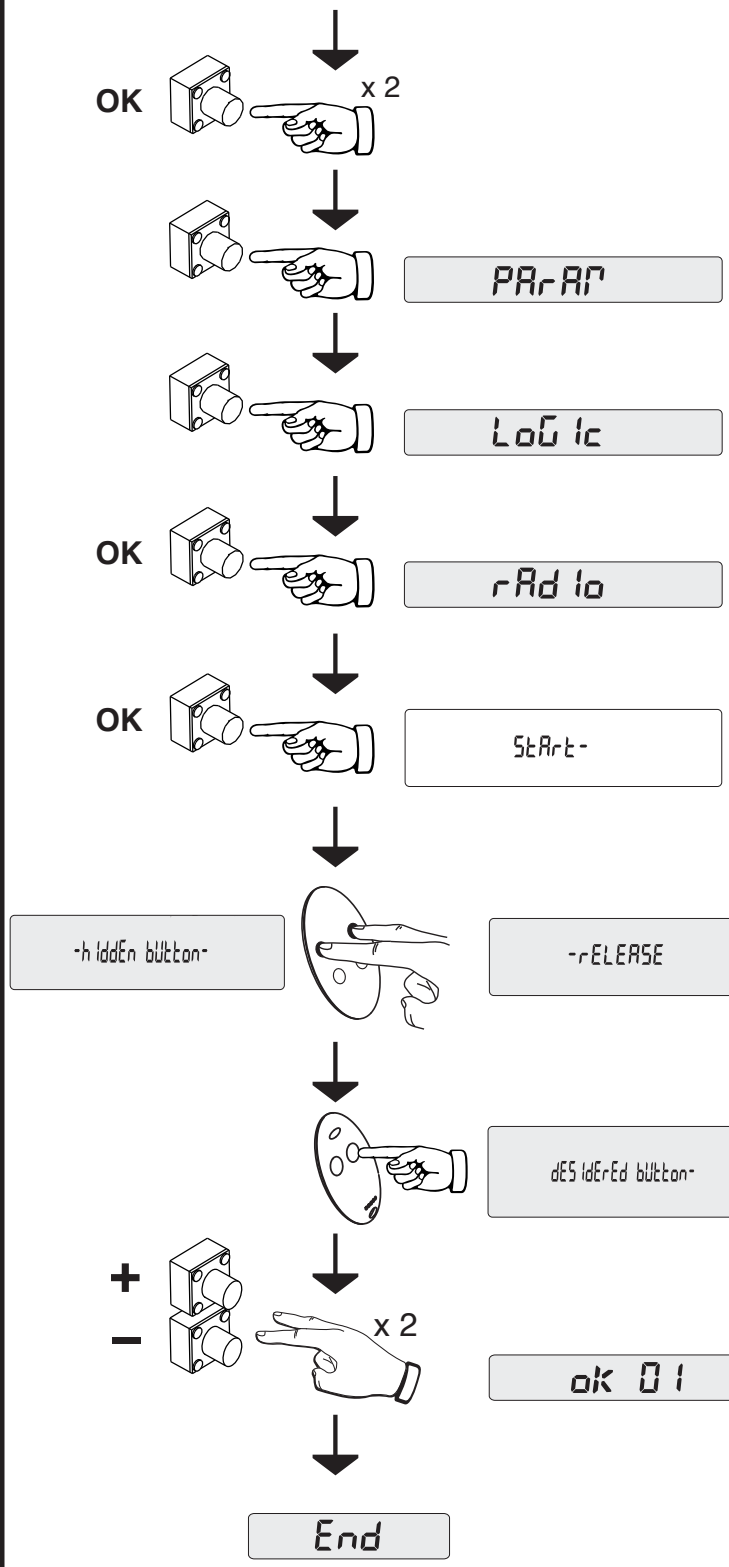




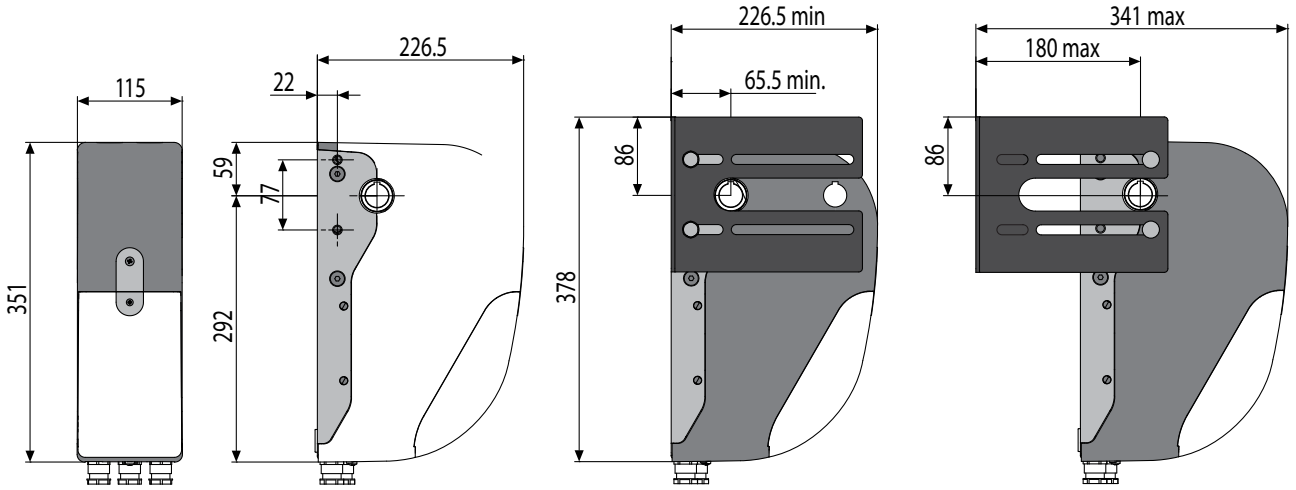
G

MEMORIZING REMOTE CONTROLS

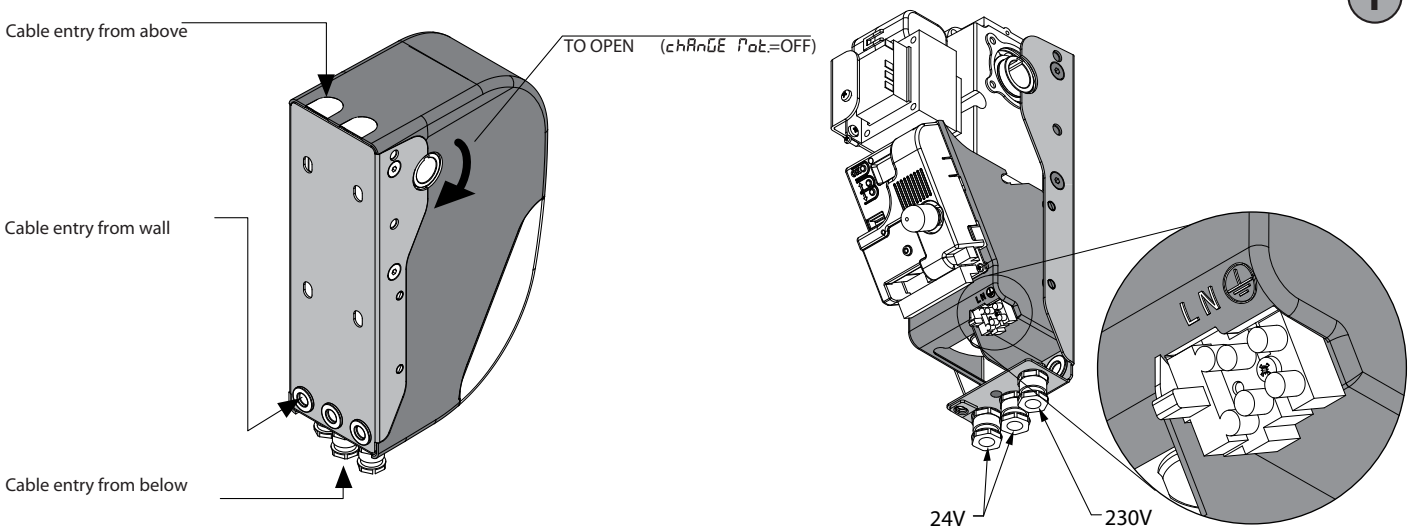




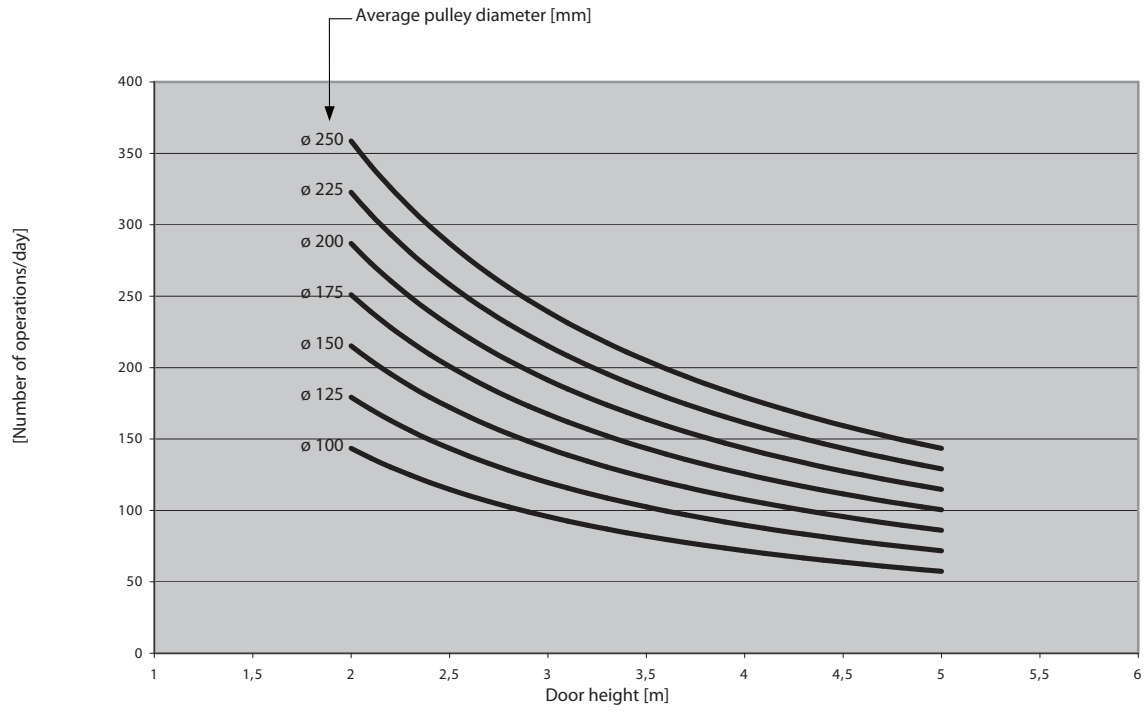
H


115
226.5
22
59
77
351
292
226.5 min
65.5 min.
86
378
341 max
180 max
86

I


Cable entry from above
Cable entry from wall
Cable entry from below
TO OPEN (CHANGE PAR.=OFF)
L N
24V
230V

J


Average pulley diameter [mm]
ø 250
ø 225
ø 200
ø 175
ø 150
ø 125
ø 100
[Number of operations/day]
400
350
300
250
200
150
100
50
0
1
1,5
2
2,5
3
3,5
4
4,5
5
5,5
6
Door height [m]

REMOTE TRANSMITTER PROGRAMMING

K

1 Radio transmitter already memorised

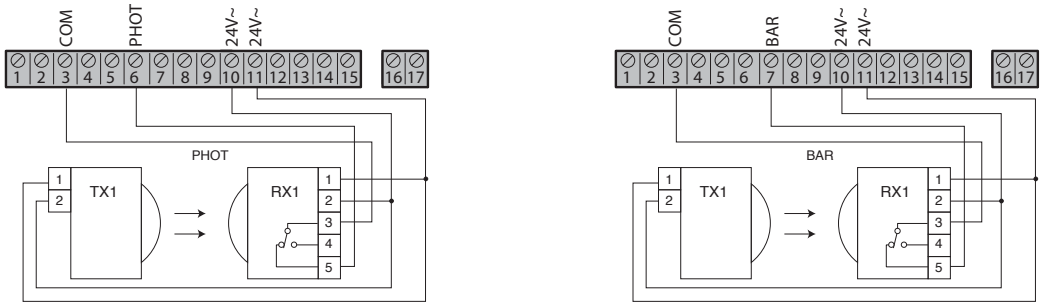
2 Radio transmitter already memorised

3 Radio transmitter to memorise

4 Radio transmitter to memorise

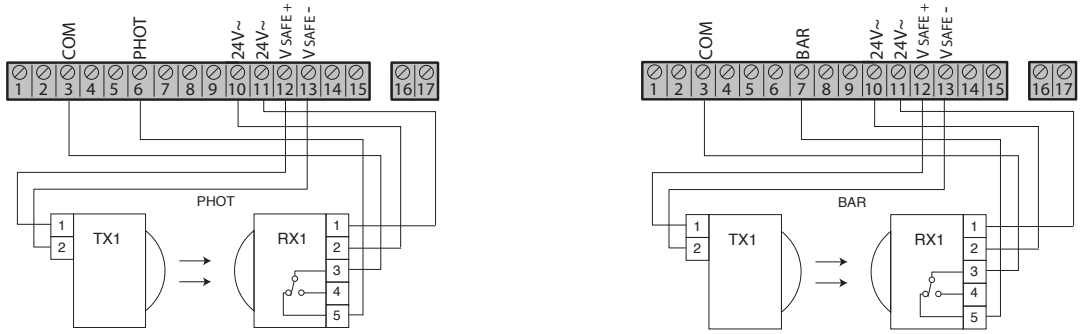
L

Connection of 1 untested device



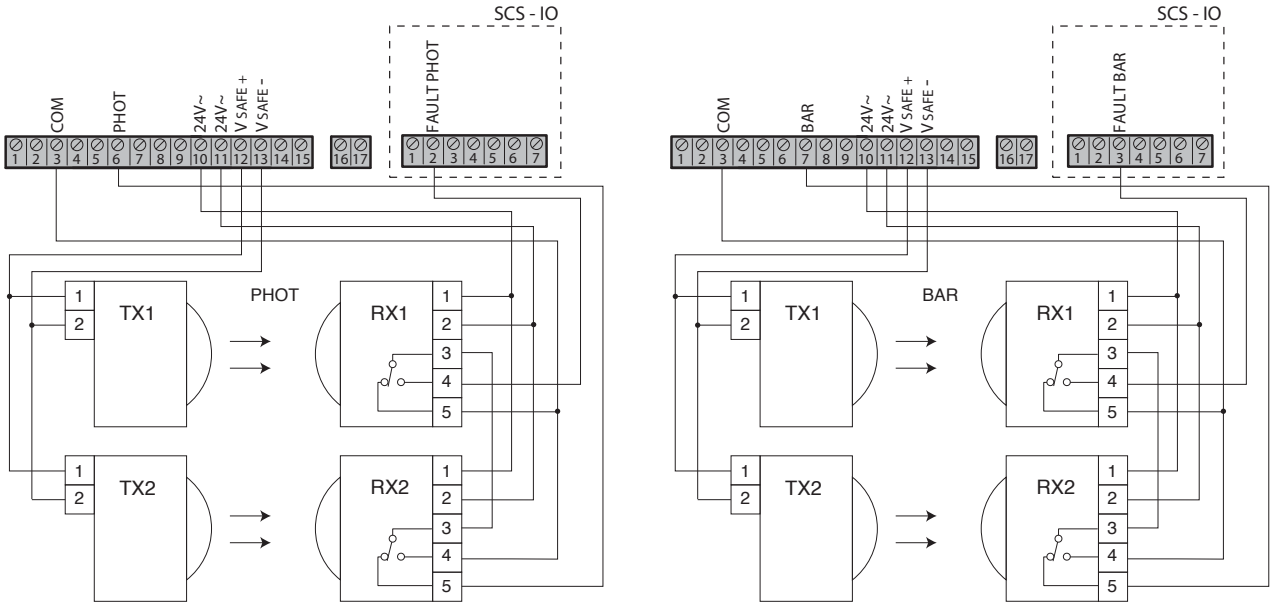
M

Connection of 1 tested device



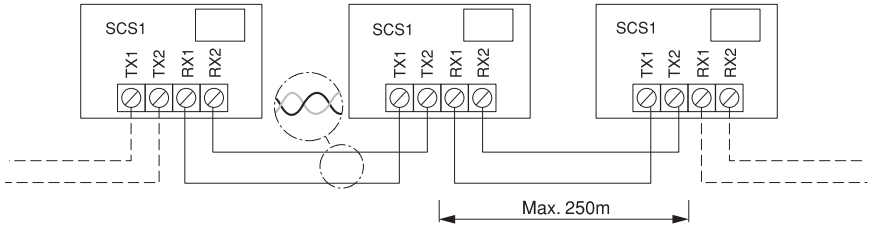
N

Connection of 2 tested devices

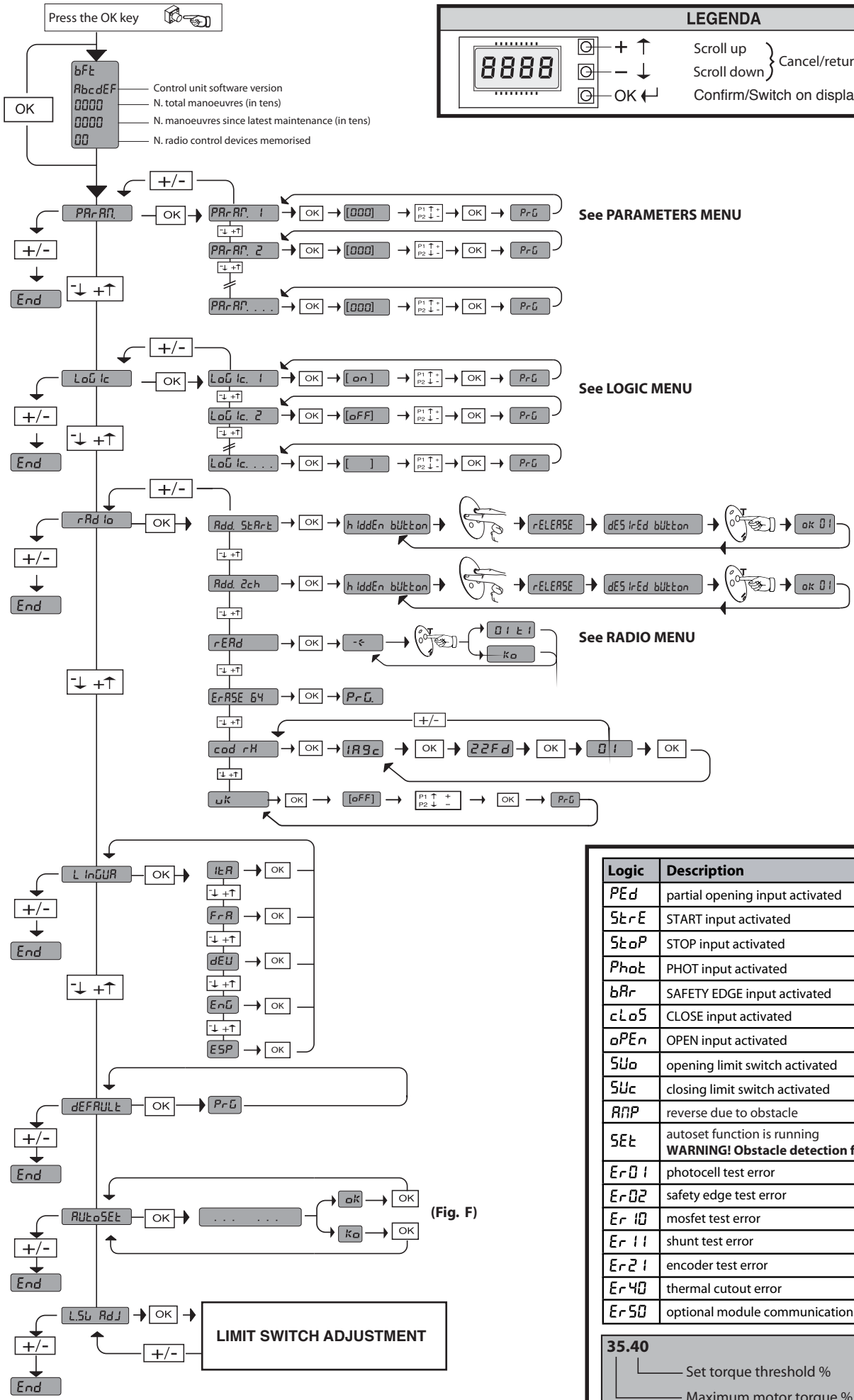


O

Serial Connection Via Scs1 Card



ACCESS TO MENUS



Logic	Description
PEd	partial opening input activated
StrE	START input activated
StoP	STOP input activated
Phot	PHOT input activated
bAr	SAFETY EDGE input activated
cLoS	CLOSE input activated
oPEn	OPEN input activated
SUo	opening limit switch activated
SUc	closing limit switch activated
AnP	reverse due to obstacle
SEt	autoset function is running **WARNING! Obstacle detection function is not active**
Er01	photocell test error
Er02	safety edge test error
Er 10	mosfet test error
Er 11	shunt test error
Er21	encoder test error
Er40	thermal cutout error
Er50	optional module communication error

35.40
- Set torque threshold %
- Maximum motor torque %

ENGLISH

WARNING! Important safety instructions. Carefully read and comply with the Warnings booklet and Instruction booklet that come with the product as incorrect installation can cause injury to people and animals and damage to property. They contain important information regarding safety, installation, use and maintenance. Keep hold of instructions so that you can attach them to the technical file and keep them handy for future reference.

1) GENERAL SAFETY

- The units making up the machine and its installation must meet the requirements of the following European Directives: 2004/108/EEC, 2006/95/EEC, 98/37/EEC, 89/106/EEC and later amendments. For all countries outside the EEC, it is advisable to comply with the above-mentioned standards, in addition to any national standards in force, to achieve a good level of safety.
- The Firm disclaims all responsibility resulting from improper use or any use other than that for which the product has been designed, as indicated herein, as well as for failure to apply Good Practice in the construction of entry systems (doors, gates, etc.) and for deformation that could occur during use.
- Make sure the stated temperature range is compatible with the site in which the automated system is due to be installed.
- Do not install the product in an explosive atmosphere.
- Disconnect the electricity supply before performing any work on the system. Also disconnect buffer batteries, if any are connected.
- Have the automated system's mains power supply fitted with a switch or omnipolar thermal-magnetic circuit breaker with a contact separation of at least 3.0 mm.
- Make sure that upline from the mains power supply there is a residual current circuit breaker that trips at 0.03A.
- Make sure the earth system has been installed correctly: earth all the metal parts belonging to the entry system (doors, gates, etc.) and all parts of the system featuring an earth terminal.
- Installation must be carried out using safety devices and controls that meet standard EN 12978.
- Apply all safety devices (photocells, safety edges, etc.) required to keep the area free of crushing, dragging and shearing hazards.
- The motor cannot be installed on panels incorporating doors (unless the motor can be activated when the door is open)
- If the automated device is installed at a height of less than 2.5 m or is accessible, the electrical and mechanical parts must be suitably protected.
- Any fixed controls must be installed within sight of the door but away from moving parts. Unless the control is key operated, it must be installed at a height of at least 1.5 m and in a place where it cannot be reached by the public
- Apply at least one warning light (flashing light) in a visible position, and also attach a Warning sign to the structure.
- If there are no instructions already, attach a label near the operating device, in a permanent fashion, with information on how to operate the manual release.
- Make sure that nothing can be crushed between the guided part and surrounding fixed parts during the door's operation
- Once installation is complete, make sure the motor has the right settings and that the safety and release systems are working properly.
- Only use original spare parts for any maintenance or repair work. The Firm disclaims all responsibility for the correct operation and safety of the automated system if parts from other manufacturers are used.
- Do not make any modifications to the automated system's components unless explicitly authorized by the Firm.
- Dispose of packaging materials (plastic, cardboard, polystyrene, etc.) in accordance with the provisions of the laws in force. Keep nylon bags and polystyrene out of reach of children.

Warning! For connection to the mains power supply, use a multicore cable with a cross-section of at least 4x1.5mm² of the kind provided for by the regulations mentioned above (by way of example, type H05 VV-F cable can be used with a cross-section of 4x1.5mm²). To connect auxiliary equipment, use wires with a cross-section of at least 1 mm².
Have an omnipolar circuit breaker installed with a contact separation of at least 3 mm and featuring overload protection, suitable for cutting the automated device off from the mains.
Only use pushbuttons with a capacity of 10A-250V or more.

The cables must be held in position using an extra fixing device in the proximity of the terminals, e.g. with cable clamps.
Also add more clips to the limit device wires, to the transformer primary or secondary wires, and to the wires connected to the printed circuit.
During installation, the power supply cable must be stripped in order for the earthing wire to be connected to the appropriate terminal, but the active wires must be left as short as possible. The earthing wire must be the last to stretch in the case where the cable fixing device becomes loose.
⚠ WARNING: extremely low safety voltage cables must be phisically separated from low voltage cables.
Access to the electrical compartment or to limit switches must be allowed to skilled personnel only.

Compliance with current safety rules with regard to people, animals and property must be assured at all times and, more specifically, measures must be taken to avoid risks of injury due to crushing, in the area where the pinion and rack mesh, and any other mechanical hazards. **All critical points must be protected by safety devices in accordance with the provisions of the regulations in force.**

CHECKING THE AUTOMATED DEVICE

Before the automated device is finally put into operation, perform the following checks meticulously:

- Make sure all components are fastened securely.
- Check the correct functioning of all safety devices (limit microswitches, photocells, sensitive edges etc.).
- Make sure that the anti-crush system stops the door within the limits provided for by the standards in force.
- Check the emergency operation control device.
- Check the opening and closing operations with the control devices in use.
- Check the standard and customised electronic functioning logic.

USE OF THE AUTOMATED DEVICE

Since the automated device can be remote controlled via a remote control or start button, hence with the door out of sight, it is vital that all safety devices be checked frequently to ensure they are in perfect working order. If there is any malfunction, take prompt action, calling in qualified personnel to do the job.
You are strongly advised to keep children well out of range of the automated system. Depending on the type of control applied, the automated device must be used in compliance with the installer's instructions in order to operate without endangering people, animals or property.

CONTROL

The purpose of using the automated device is to enable motorized door opening and closing. There are various options when it comes to the control system (manual, remote control, access control with magnetic badge etc.) depending on the installation's needs and characteristics. See the relevant instructions for the various control system options.
People due to use the automated device must be instructed how to control and use it.

MAINTENANCE

When performing maintenance of any kind, cut off power to the system.

- Check the drive system at regular intervals.
- Check all safety devices installed for the door and drive.
- In the event of any anomalous functioning which cannot be resolved, disconnect the power supply and contact a specialised technician (installer). Whilst the automation is out of order, activate the manual release to allow manual opening and closing.

SCRAPPING

WARNING! Employ the services of qualified personnel only. Materials must be disposed of in accordance with the regulations in force. There are no particular hazards or risks involved in scrapping the automated system. For the purpose of recycling, it is best to separate dismantled parts into like materials (electrical parts - copper - aluminium - plastic - etc.).

DISMANTLING

WARNING! Employ the services of qualified personnel only.
If the automated system is being dismantled in order to be reassembled at another site, you are required to:

- Cut off the power and disconnect the whole external electrical system.
- See to the replacement of any components that cannot be removed or happen to be damaged.

2) GENERAL INFORMATION

Actuator for motorizing residential and industrial sectional doors.
Its compact design and mounting versatility mean the drive can be applied in different ways.

3) TECHNICAL SPECIFICATIONS	
Power supply:	230V ±10%, 50/60Hz (*)
Max. power input:	70W
Limit switch:	Electronic ENCODER model Output shaft MAX. 18 rpm
Courtesy light:	24V bulb ~ max. 25W, E14
Operating temperature range:	-15°C / +55°C
Max. door size:	20 m^2
Max. torque:	55 Nm
Lubrication:	Lifetime greased
Manual operation:	Knob-operated mechanical release
Protection rating:	IP 40
Noise level:	<70dBA
Operator weight:	10 kg
Dimensions:	See Fig. H
Accessories power supply:	24V~ (180 mA)
Flashing light connection:	24V max 25W
Fuses:	See Fig. D
Built-in Rolling-Code radio-receiver:	frequency 433.92MHz

(*) Special supply voltages to order.

Usable transmitter versions:
All ROLLING CODE transmitters compatible with .

4) REMOVING THE COVER Fig. A

5) TUBE ARRANGEMENT Fig. B

6) INSTALLING THE OPERATOR Fig. C

5) CABLE ENTRY FIG. I

6) MANUAL RELEASE (See USER GUIDE -FIG. Y-).

7) WIRING

TERMINAL	DESCRIPTION
JP2	Transformer wiring
JP10	Motor wiring
1-2	Antenna input for built-in radio-receiver board (1:BRAIDING 2: SIGNAL)
3-4	START/OPEN INPUT (N.O.)
3-5	STOP input (N.C.) If not used, leave jumper inserted
3-6	PHOTOCELL input (N.C.) If not used, leave jumper inserted
3-7	SAFETY EDGE input (N.C.) If not used, leave jumper inserted
8-9	24 V~ output for flashing light (max. 25 W)
10-11	24V~ max. 180mA output - power supply to photocells or other devices.
12-13	24V~ Vsafe max. 180mA output - power supply to transmitters photocells with test.
14-15	(NO contact) / Output 1 height programmable
16-17	PARTIAL OPENING/CLOSE input (N.O.)
1-2 (SCS-IO)	PHOT-FAULT input (NO). Input for photocells equipped with NO test contact.
1-3 (SCS-IO)	BAR-FAULT input (NO). Input for safety edges equipped with NO test contact.
4-5 (SCS-IO)	(NO contact) / Output 2 Height programmable
6-7 (SCS-IO)	Gate open light/2nd radio channel output (NO contact)

7.1) SAFETY DEVICES

Note: only use receiving safety devices with free changeover contact.

Fig. L: Connection of 1 untested device (photocell or safety edge).
Fig. M: Connection of 1 tested device (photocell or safety edge).
Fig. N: Connection of 2 tested devices (photocells or safety edges). This connection is made possible via the SCS-IO optional module only.

8) ADJUSTMENTS

RECOMMENDED ADJUSTMENT SEQUENCE:
Adjusting the limit switches (Fig. E)
Autoset (Fig. F)
Programming remote controls (Fig. G)
Setting of parameters/logic, where necessary

8.1) PARAMETERS MENU (PArAM)
(TABLE "A" PARAMETERS)

8.2) LOGIC MENU (LoG Ic)
(TABLE "B" LOGIC)

8.3) RADIO MENU (rAd Io)

Logic	Description
Add StArt	**Add Start Key** associates the desired key with the Start command
Add 2ch	**Add 2ch Key** associates the desired key with the 2nd radio channel command
rEAd	**Read** Checks a key of a receiver and, if memorized, returns the number of the receiver in the memory location (from 01 to 64) and number of the key (T1-T2-T3 or T4).
ErASE 64	**Erase List** **WARNING!** Erases all memorized remote controls from the receiver's memory.
cod rH	**Read receiver code** Displays receiver code required for cloning remote controls.
UH	**ON =** Enables remote programming of cards via a previously memorized W LINK transmitter. It remains enabled for 3 minutes from the time the W LINK remote control is last pressed. **OFF=**W LINK programming disabled.

- **IMPORTANT NOTE: THE FIRST TRANSMITTER MEMORIZED MUST BE IDENTIFIED BY ATTACHING THE KEY LABEL (MASTER).**

In the event of manual programming, the first transmitter assigns the RECEIVER'S KEY CODE: this code is required to subsequently clone the radio transmitters.
The Clonix built-in on-board receiver also has a number of important advanced features:

- Cloning of master transmitter (rolling code or fixed code)
- Cloning to replace transmitters already entered in receiver
- Transmitter database management
- Receiver community management

To use these advanced features, refer to the universal handheld programmer's instructions and to the CLONIX Programming Guide, which come with the universal handheld programmer device.

8.4) LANGUAGE MENU (LAnGUAGE)
Used to set the programmer's language on the display.

8.5) DEFAULT MENU (dEFAULt)
Restores the controller's default factory settings.

8.6) AUTOSET MENU (AUtoSEt) (Fig. F)

- Move the door to the closed position.
- Launch an autoset operation by going to the relevant menu on the VENERE D panel.
- As soon as you press the OK button, the ".... ...." message is displayed and the control unit commands the door to perform a full cycle (opening followed by closing), during which the minimum torque value required for the door to move is set automatically.
  During this stage, it is important to avoid breaking the photocells' beams and not to use the START and STOP commands or the display.
  Once this operation is complete, the control unit will have automatically set the optimum torque values. Check them and, where necessary, edit them as described in the programming section.

WARNING: Check that the force of impact measured at the points provided for by standard EN 12445 is lower than the value laid down by standard EN 12453.

D811627 00100_02

⚠ Warning!! While the autoset function is running, the obstacle detection function is not active. Consequently, the installer must monitor the automated system's movements and keep people and property out of range of the automated system.

8.7) LIMIT SWITCH ADJUSTMENT MENU (L.SW ADJ) (Fig . E)
Limit switch adjustment procedure:
1) Go to L.SW ADJ and confirm with OK.
2) The display reads CLOSE. Use the UP and DOWN keys to move the door to the closing limit switch position. Confirm with OK. The display reads PRG.
3) If prompted by the display, turn the adjustment ring: anticlockwise if the display reads UP; clockwise if the display reads DOWN. Once you have reached the correct position, the display reads OK. Confirm with the OK key. The display reads PRG.
4) The display reads OPEN. Use the UP and DOWN keys to move the door to the opening limit switch position. Confirm with OK. The display reads PRG.

If the display reads KO, it means adjustment was not successful.
This may be caused by:
- the ESC key being pressed before adjustment was completed
- stored travel being too short

9) SCS OPTIONAL MODULES

9.1) SERIAL CONNECTION VIA SCS1 CARD (Fig. O)
The VENERE D control panel's special serial inputs and outputs (SCS1) make the centralized connection of a number of automated devices possible. That way, all the automated devices connected can be opened or closed with a single command.
Connect all VENERE D control panels using twisted pair cabling only, proceeding as shown in the diagram in Fig. O.
When using a telephone cable with more than one pair, it is essential to use wires from the same pair.
The length of the telephone cable between one unit and the next must not be greater than 250 m.
At this point, each VENERE D control panel needs to be configured appropriately, starting by entering a MASTER control panel that will have control over all the others, which therefore have to be set as SLAVE units (see logic menu).
Also set the Zone number (see parameters menu) in the range 0 to 127.
The zone number allows you to create groups of automated devices, each of which answers to the Zone Master. Each zone can have only one Master: the Master of zone 0 also controls the Slaves of the other zones.

9.2) Interface with WIEGAND systems via SCS-WIE module.
Refer to the SCS-WIE module's instructions.

9.3) Expanding inputs and outputs via the SCS-IO optional module.
The SCS-IO optional module can be used to add 2 inputs and 2 outputs to the VENERE-D board (Fig. D).
To activate the connection between SCS-IO and VENERE-D, you need to plug the SCS-IO module into the relevant connector and then set the ZONE parameter to 129.
At this point, the 2 boards are synchronized and the SCS-IO board's inputs/outputs are managed by the VENERE-D board.

TABLE "A" - PARAMETERS MENU - (PARAM)

Logic	min.	max.	default	Definition	Description
tcA	0	120	40	**Automatic Closing Time**	Automatic closing time [s]
oPt SLou	1	99	75	**Opening motor torque**	Opening torque [%] Sets sensitivity to obstacles during opening (1=max., 99=min.) The autoset feature sets this parameter automatically to a value of 10%. The user can edit this parameter based on how sensitive the door needs to be to obstacles.
cLSt SLou	1	99	75	**Closing motor torque**	Closing torque [%] Sets sensitivity to obstacles during closing (1=max., 99=min.) The autoset feature sets this parameter automatically to a value of 10%. The user can edit this parameter based on how sensitive the door needs to be to obstacles.
oP SPEEd	10	99	99	**Speed during opening**	Running speed during opening [%] Sets the running speed that the door must reach during opening, as a percentage of the maximum speed the actuator can reach. Should this parameter be edited, it will be followed by a complete opening/closing cycle for setting purposes (reported by the message "SET" appearing on the display), during which obstacle detection is not enabled.
cL SPEEd	10	99	99	**Speed during closing**	Running speed during closing [%] Sets the running speed that the door must reach during closing, as a percentage of the maximum speed the actuator can reach. Should this parameter be edited, it will be followed by a complete opening/closing cycle for setting purposes (reported by the message "SET" appearing on the display), during which obstacle detection is not enabled.
d ISt.SLoUd	5	99	10	**Slow-down distance**	Slow-down distance [%] Sets the approach distance to reach the travel limit. This distance is travelled at low speed.
PArt IAL oPEn inG	10	99	40	**Partial opening**	Partial opening [%] Adjusts partial opening percentage compared to total opening in "Partial open" mode.
ZonE	0	129	0	**Zone**	Zone [] Sets the zone number of the door included in the serial connection for commands via central controllers. Zona=128 not used. Zone=129 Use of optional SCS -I0 module.
oUt ProG 1	1	99	50	**Output 1 height programmable**	The output between terminals 14-15 is activated when the door exceeds the opening percentage set with this parameter (1% = door closed, 99% = door open).
oUt ProG 2	1	99	50	**Output 2 height programmable**	The output between terminals 4-5 on the SCS-IO optional module is activated when the door exceeds the opening percentage set with this parameter (1% = door closed, 99% = door open).

TABLE "B" - LOGIC MENU - (LoG Ic)

Logic	min.	max.	default	Definition	Description
tcA	---	---	**OFF**	**Automatic Closing Time**	ON Switches automatic closing on OFF Switches automatic closing off
Ibl. oPEn	---	---	**OFF**	**Block Pulses**	ON The start pulse has no effect during opening. OFF The start pulse has effect during opening.
3 StEP	---	---	**OFF**	**3 Step**	ON Switches to 3-step logic. A start pulse has the following effects: door closed: opens during opening: stops and switches on TCA (if configured). door open: closes during closing: stops and opens again OFF Switches to 4-step logic. A start pulse has the following effects: door closed: opens during opening: stops and switches on TCA (if configured) door open: closes during closing: stops and does not switch on tca (stop)
PrE-ALArM	---	---	**OFF**	**Pre-alarm**	ON The flashing light comes on approx. 3 seconds before the motors start. OFF The flashing light comes on at the same time as the motors start
hoLd-to-rUn	---	---	**OFF**	**Deadman**	ON Deadman mode during closing: opening operation performed in automatic mode; closing operation continues as long as the control key is held down. (CLOSE). OFF Pulse operation (standard)
Photoc. oPEn	---	---	**OFF**	**Photocells during opening**	ON: When beam is broken, operation of the photocell is switched off during opening. During closing, movement is reversed immediately. OFF: When beam is broken, photocells are active during both opening and closing. When beam is broken during closing, movement is reversed only once the photocell is cleared.
tESt Phot	---	---	**OFF**	**Photocell test**	ON Switches photocell testing on OFF Switches photocell testing off If disabled (OFF), it inhibits the photocell testing function, enabling connection of devices not equipped with supplementary test contacts.
tESt bAr	---	---	**OFF**	**Safety edge testing**	ON Switches safety edge testing on OFF Switches safety edge testing off If disabled (OFF), it inhibits the safety edge testing function, enabling connection of devices not equipped with supplementary test contacts
MASter	---	---	**OFF**	**Master/Slave**	ON Control panel is set up as the Master unit in a centralized connection system. OFF Control panel is set up as a Slave unit in a centralized connection system.
FIXEd codE	---	---	**OFF**	**Fixed code**	ON Receiver is configured for operation in fixed-code mode. OFF Receiver is configured for operation in rolling-code mode.
rAd Io ProG	---	---	**ON**	**Remote control programming**	ON Enables wireless memorizing of transmitters: (Fig. K) 1- Press in sequence the hidden key (P1) and normal key (T1-T2-T3-T4) of a transmitter that has already been memorized in standard mode via the radio menu. 2- Press within 10 sec. the hidden key (P1) and normal key (T1-T2-T3-T4) of a transmitter to be memorized. The receiver exits programming mode after 10 sec.: you can use this time to enter other new transmitters. This mode does not require access to the control panel. OFF Disables wireless memorizing of transmitters. Transmitters are memorized only using the relevant Radio menu.
ScA-2ch	---	---	**OFF**	**Gate open light or 2nd radio channel**	ON The output between terminals 6-7 on the optional SCS-10 module is set as Gate open light: in this case, the 2nd radio channel controls pedestrian opening. OFF The output between terminals 6-7 on the optional SCS-10 module is set as 2nd radio channel
StArt - oPEn	---	---	**OFF**	**Selection START - OPEN**	ON Input between terminals 3-4 works as OPEN. OFF Input between terminals 3-4 works as START
PEd-cLoSE	---	---	**OFF**	**Selection PEDESTRIAN - CLOSE**	ON Input between terminals 16-17 works as CLOSE. OFF Input between terminals 16-17 works as PEDESTRIAN
chAnGE Mot.	---	---	**OFF**	**Reversing motion**	ON Reverses motion of standard rotation (See Fig.I). OFF Standard rotation (See Fig.I).

FIG. Y